

The swarms were observed in an environment quite distinct from that in which nests of this species were located in this region. Evidently the primary attraction for these alates was the top of a tree, not the major environment. Perhaps swarms form at the tops of trees in any local environment. They would, however, be most noticeable where the trees were small and scattered. Additional swarms may form over the trees in the woodlands, but, because of the height of the trees and the dense foliage, they would be difficult to observe. If the alates were attracted to the tree-tops as prominences, the fact that the trees surrounding the pond were isolated may be important. In a more or less open environment any tree-top would likely be a conspicuous promontory. In a woods probably only those individual trees which towered above the general canopy level would attract the alates.

New American Tachinidae (Diptera)¹

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The new species characterized herein were encountered in material received for study from several different sources which are all cited below.

Phyllophilopsis evanida, n. sp.

A small long-legged species differing from the genotype, *P. nitens* (Coq.), most obviously by the presence of a fascicle of recurved spines on the female mid coxae.

Female.—Shining black, thorax thinly pruinose, last three abdominal segments silvery on narrow basal margin. Legs reddish yellow, weakly bristled, elongated. Head silvery pollinose, frontalia subequal parafrontal width, vertex 0.11 of head width; inner verticals decussate, outer equally large and divaricate; ocellars small; two proclinate orbitals and five or six

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frontals in a single row; narrow parafacial and facialia bare; vibrissae on oral margin; antenna subequal length of face, black, third segment about four times second; arista thickened near base thence slender and short-haired to tip; cheek about one-seventh eye length; eye bare; palpus red, proboscis short. Acrostichals minute before and behind suture; sternopleurals three, lowermost small and sometimes lacking; scutellum with two lateral and one hairlike apical pair. Abdomen bearing a marginal row of bristles on last three segments, no median discals. Wing rather long, hyaline with a yellow tinge; first posterior cell open at wing tip; third vein with one setule near base; calypters glassy white. Genitalia terminating in a short sclerotized piercer-like organ.

Male.—Legs very slender and greatly elongated; fore claws and pulvilli longer than last tarsal segment. Front strongly narrowed above lunule thence subparallel to triangle, frontalia sub-linear to completely pinched out above; vertex 0.25 of head width; inner verticals and ocellars hairlike, frontals erect and larger, including ten or more closely set bristles in a single row. Abdomen slender, subequal to length of hind femur, reddish basally. Genitalia wholly retracted within tip of abdomen; forceps fused, tapered to a fine tip.

Length, 3.5–5 mm.

Holotype female and *allotype* male, Shenandoah River, Clark Co., VIRGINIA, September 3, 1923 (J. M. Aldrich) in the U. S. National Museum. *Paratypes*: 5 males and 1 female same data as type; 1 female, Wenonah, N. J., September 5, 1910; 2 females, Chain Bridge, Va., June 30, 1923 (J. M. Aldrich) and Difficult Run, Va., July 7, 1915 (R. C. Shannon); 1 female, Plummers Island, Md., August 27, 1927 (J. R. Malloch); 1 female ex larva *Endomychus biguttatus* Say, Snowhill, Md., May 19, 1941 (W. H. Anderson); and 1 male, Beltsville, Md., September 3, 1916 (W. L. McAtee), all in the U. S. National Museum. In my collection, 2 females, Babylon, L. I., N. Y., June 19, 1936 (Blanton & Borders); 1 female, Ringwood, N. Y., June 13, 1922 (L. S. West); 1 female, Chester, Mass., August 8, 1911 (C. W. Johnson).

Hemyda decumata, n. sp.

Similar to *H. aurata* R-D, differing mainly as follows:

Male.—Head pollen golden, cheek and occiput gray; antenna black, arista contrasting pale red; thorax black, scutellum reddish beyond middle; sternopleura, humeri, and transverse suture densely golden pollinose, besides two broad prescutal vittae of similar pollen which taper rearward and fade out before suture; legs except tibiae and ventral margin of femora black; wing yellow to smoky brown on costal margin becoming paler or grayish hyaline on posterior half; abdomen elongate and slender, second segment translucent yellow except median line and on narrow hind margin; third segment feebly shining black with narrow basal margin and extreme posterior edge above pale yellow; segment four black with yellow pollen sprinkled thinly over most of upper surface, the following one concolorous but more distinctly shiny above; genitalia as in *aurata*.

Female.—Similar to male except for sexual differences.

Length, 10–12.5 mm.

Holotype male and *allotype* female, Rio Blanco, V. C. MEX., November 13, 1957 (R. & K. Dreisbach). *Paratypes*: 4 males and 2 females, same data as type.

Clairvillia curialis, n. sp.

A shiny black species allied to *C. nitoris* (Coq.), but with decisive differences in the male genitalia.

Male.—Head gray to silvery pollinose; parafrontal rather thickly clothed with fine erect hairs and strongly narrowed above mid front; latter at vertex 0.19 of head width increasing to 0.44 of same at antennal base; frontal bristles longish but rather weak, one or two below base of antenna; ocellars weak, reclinate; inner verticals decussate at tip, nearly as long as vibrissae, which are well above oral margin; facialia broad and flattened, with a few small hairs on lower extremity; antenna jet black, third segment about one-half longer than second; arista bare, little thickened on basal fourth or less, proximal segments short; bare parafacial a trifle narrowed downward;

cheek about one-fifth eye length; proboscis short, palpus black, slender, subequal to haustellum length; eye bare, reaching to vibrissal level; back of head convex below, clothed with intermixed black and pale hairs.

Thorax and scutellum black, surface showing a bluish white sheen in most views. Chaetotaxy: acrostichal 0, 1 (hairlike); dorsocentral 2, 3; intraalar 2; supraalar 3; presutural 1 (outer); notopleural 2; humeral 2-3; pteropleural 1 (small); sternopleural 3; scutellum with 3 lateral (hindmost weak) and 1 decussate apical, no differentiated discals. Legs shiny black; hind tibia with some erect but rather short villous hairs and a row of uneven bristles on outer posterior side; claws and pulvilli elongate. Wing subhyaline slightly yellowish on costal margin; first posterior cell open well before wing tip; third vein with one setule near base; oblique hind cross vein barely its length from rounded cubitulus; costal spine small; calypters large, opaque white with inner rim of hind lobe black.

Abdomen black, last three segments pruinose above in favorable view, hairs on entire upper surface rather sparse, long and erect; one pair of erect median marginal bristles on second segment and a marginal row on the two following ones, no differentiated discals; first genital segment shining black, fused with last abdominal segment, not prominent in profile and directed anteroventrally; second segment subglobose, less shining, hind surface with a uniform vestiture of short black hairs; forceps polished and slender beyond base; latter bearing a pair of short square-tipped hairy appendages on hind side, with a dense cluster of long recurved brown hairs at posterior extremity of the narrowed or free part of the forceps.

Female.—Similar to male, but head bristling stronger, two pairs verticals and proclinate orbitals; vertex 0.26 of head width; frontalia wider than parafrontal; claws and pulvilli short; abdomen elongate, dorsal vestiture appressed; anal cerci strongly bowed inward and forcepslike; fourth segment much shorter than preceding, smooth and polished on basal half above.

Length, 6 mm.

Holotype male and *allotype* female, Cuernavaca, Mex., September 28, 1957 and October 29, 1957 (R. & K. Dreisbach).

Paratype, 1 female, Tepetzlan, Morelos, Mex., September 26, 1957 (R. & K. Dreisbach).

***Paralispidea aperta*, n. sp.**

Similar to *P. unispinosa* (Coq.), but the antennae wholly black and distinctly larger; eyes bare; palpi infuscated; abdomen with discals, etc.

Male.—Front at vertex about two-fifths head width; head gray pollinose on dark background; verticals two pairs; frontals in a single row with two bristles below antennal base; one reclinate and two proclinate fronto orbitals; ocellars proclinate; frontalia reddish, narrower than one parafrontal; antenna as long as face, broad third segment five or more times length of second; black arista micro-pubescent, evenly tapered to slender tip; vibrissae slightly below oral margin; facialia bearing a few hairs on lower extremity; narrow parafacial with a row (sometimes irregular) of short coarse hairs extending from near lower frontal to cheek groove; labella slender, nearly half as long as short haustellum; cheek about two-fifths eye length.

Thorax black, notum dusted with gray pollen, four dark vittae before suture but hardly visible behind, black scutellum sub-polished; three post dorsocentrals and two or three sternopleurals; scutellum with three good-sized lateral bristles, discals and apicals not developed. Legs black; mid tibiae with one median anterolateral bristle; claws and pulvilli short. Wing hyaline with a light tawny tinge on costal half or more; first posterior cell nearly closed at wing tip; cubitulus broadly rounded, without stump or fold; hind cross vein about midway between latter and small cross vein; third vein with one good-sized setule near base; costal spine well developed; calypters semitransparent yellowish white.

Abdomen shiny black, narrow basal margin of segments two to four silvery pollinose; discals smallish on intermediate segments and situated far before middle on each, the median marginal pair on segments two and three also set well forward and appearing as discals; one pair of median marginals on first segment, a complete discal row before middle and a submarginal row of smaller bristles on anal segment; genital black, small and

retracted in repose; forceps fused, very short tapering to an acute tip slightly bowed forward; accessory process much wider in profile and blunt-tipped; penis slender, jointed and bowed forward near middle, basal segment compressed and reddish, the distal one shining black and depressed, terminating in a minute membranous tip.

Female.—Quite similar to male.

Length, 5–6 mm.

Holotype male and *allotype* female, Waquoit, MASS., September 21, 1910 (Owen Bryant) in the U. S. National Museum. *Paratypes*: 2 males same data as type; 4 males and 1 female, Riverhead, L. I., July 4, 1952, October 9, 1953, Orient, October 19, 1952 and Greenport, L. I., August 14, 1952, all collected by Roy Latham and in the U. S. National Museum. In my collection, 1 pair, Selden, L. I., N. Y., September 9, 1934 (Blanton & Borders) and 2 males, Amherst, Ohio, July, 1933 (H. J. Reinhard).

***Nephoteropsis erotema*, n. sp.**

Quite similar to *N. johnsoni* (Coq.) in most essential details but readily distinguished on wing color and abdominal pollen patterns, among other characters as listed below.

Female only.—Front wide, at vertex 0.4 of head width; head pollen gray with a brassy tinge on parafrontalia; latter narrower than frontalia; antenna black third segment widening uniformly to broad apex and about three times longer than second; arista micro-pubescent, second segment fully three-fourths third; bare parafacialia much narrowed near mid face level and widening slightly above and below; cheek about one-third eye length; palpus short, spatulate. Thorax with heavy brassy gray pollen on mesonotum, no vittae; three post dorsocentral bristles, pre-scutellars differentiated, three sternopleurals but the lowermost weak. Legs black; apical segment of fore tarsus not noticeably widened and about equal to length of preceding one; claws and pulvilli small. Wing yellowish basally, but distinctly infuscated from tip of subcostal to apex of second longitudinal vein including apical fourth of subcostal, entire marginal and ante-

rior border of submarginal cell, thence subhyaline to hind margin; costal spine distinct but not very long. Abdomen shining black to violaceous above, with silvery pollen confined to narrow lateral basal margin of intermediate segments; anal segment with an arcuate row of discals but no distinct marginals, a complete row of erect marginals on third segment; genitalia retracted within anal orifice.

Length, 4 mm.

Holotype: Orient, L. I., NEW YORK, July 9, 1952 (Roy Latham). *Paratype*: 1 female, Falls Church, Va., September 5, 1915 (C. T. Greene). The type series is in the U. S. National Museum.

***Aplomya doloma*, n. sp.**

Differs from *A. trichiosomae*, to which it traces in Sellers' key (Proc. U. S. N. M., 93: 72-75), in having the last three abdominal segments more extensively pollinose above; third antennal segment barely one-half longer than second; third vein with a single setule near base, etc.

Male.—Head pollen subsilvery, parafrontal blackish above middle and slightly narrower than frontalia; vertex 0.24 of head width; inner verticals erect, ocellars proclinate, four or five frontal bristles below antennal base; bare parafacial well narrowed below; facialia with bristles and bristly hairs on lower fourth or less; vibrissae on oral margin; antenna black, third segment wider than parafacial; arista micro-pubescent, moderately thickened near base thence tapering and very slender to tip; eye thickly pilose, reaching to vibrissal level or slightly below; cheek about one-ninth eye length; haustellum short, thick, labella large; palpus red, thickened apically and beset with numerous black hairs.

Thorax black lightly dusted with pale pollen and feebly shining, dorsal vittae poorly defined, four in front and five behind suture; scutellum sometimes tinged with red apically; three post dorsocentral and three sternopleural bristles. Legs black, long but not very slender, mid tibia with three anterodorsal bristles, hind tibia not ciliate; claws and pulvilli subequal to

combined length of last two tarsal segments. Wing gray hyaline; hind cross vein in plane of apical and about two-thirds its length from cubitulus; latter normally without stump or fold; costal spine vestigial; calypters opaque white.

Abdomen shining black, last three segments with gray pollen above extending thinly to hind margin of each in favorable light, hairs on entire upper surface long and erect; normally one pair of median marginals on first and two on second segment, a marginal row on third and fourth besides irregularly spaced discs on last and usually one weaker pair on each intermediate segment; genital forceps rather long and thin in profile on apical half, prongs separated but contiguous to tip; accessory process thin and bladelike, considerably shorter than forceps and bearing a vestiture of minute spinose hairs on outer side; fifth sternite with a deep U-shaped median excision, lobes sparsely clothed with fine longish black hairs.

Female.—Vertex 0.29 of head width; outer verticals well developed; two stout proclinate orbitals; abdominal hairs erect but shorter and coarser than in male; claws and pulvilli shorter than last tarsal segment.

Length, 10–11 mm.

Holotype male and *allotype* female, Cranberry Gls., W. VA., August 10, 1952 (F. W. Meade), in the U. S. National Museum. *Paratypes*: 1 pair Glacier National Park, July 27, 1947 and 3 males, Teton Pass, Wyoming, August 2, 1947, all collected by F. A. Cowan and M. R. Wheeler.

Hypertophomma subita, n. sp.

A small compactly built black fly allied to *H. opaca* Tns., from which it is at once distinguished in having jet black palpi.

Female.—Face and front equibroad from vibrissae to vertex, latter 0.32 of head width; eye uncommonly large extending from upper to near lower head margin, leaving cheek linear in profile and posterior orbit also nearly obliterated; parafrontal gray pollinose, narrowed upward and subshiny black before vertex; frontalia deep velvety brown, fully four times parafrontal width; two pairs verticals and proclinate orbitals; frontal row extend-

ing two bristles below antennal base; ocellars proclinate; parafacial gray pollinose, narrowed and pinched out at lower extremity; facialia vertical, bearing three bristly hairs next to vibrissae, which are on oral margin; antenna black, third segment three times second; arista black, thickened on proximal third; proboscis short, palpus practically bare and distinctly spatulate.

Thorax and scutellum shining black with a whitish bloom apparent over most of upper surface in favorable light; three post dorsocentral bristles, two sternopleurals, scutellum with three lateral, one decussate hairlike apical and one poorly differentiated discal pair. Legs black, claws and pulvilli minute; mid tibia with one weak anterolateral bristle, hind tibia subpectinate. Wing gray hyaline, veins brown, third with two or three setulae near base; first posterior cell narrowly open shortly before wing tip; hind cross vein midway, cubitulus broadly rounded; costal spine not developed; calypters translucent tawny.

Abdomen ovate about as broad as long, shining black with basal margin of last three segments lightly dusted with whitish pollen; one pair of median marginals on first three segments and a marginal row on last, no discals. Male unknown.

Length, 3.5 mm.

Holotype, Huajitlan, Morelos, MEX., September 27, 1957 (R. & K. Dreisbach).

***Thelairodoria floscula*, n. sp.**

Similar to *T. thrix* Tns. (genotype), but the head and mesonotal pollen wholly silvery gray; two or three frontals below antennal base; facialia ciliated on about lower fourth, etc.

Male.—Front at vertex 0.22 of head width, equibroad on upper third, thence evenly divergent into facial angle; frontalia deep brownish, narrower than parafrontal; two strong reclinate preverticals and one (inner) vertical, ocellars a bit weaker and proclinate; antennae black, third segment about five times second; arista micro-pubescent, very slender beyond slightly thickened proximal fifth; facialia subvertical, with bristly hairs on lower third or less; vibrissae large, on oral margin; bare para-

facialia equal to facialia inverted; eye pilose, extending almost to vibrissal level; cheek barely one-seventh eye length; proboscis short, palpus red, beset with short black hairs on thickened apical half; back of head rather densely pale-haired below.

Thorax and scutellum black dusted with gray pollen leaving four black notal vittae, inner pair narrow, the outer ones broader but widely interrupted at suture. Chaetotaxy: acrostichal 3, 3; dorsocentral 3, 3; intraalar 3; supraalar 3; presutural 1 (outer); humeral 2-3; sternopleural 2; pteropleural 1 (small); scutellum with 3 strong lateral, 1 weak decussate apical and 1 poorly differentiated discal pair. Legs black, normal in length; hind tibia subpectinate and one stoutish median bristle on outer front side of mid tibia; claws and pulvilli longer than last tarsal segment. Wing subhyaline, reaching beyond apex of abdomen; first posterior cell narrowly open a little before wing tip; hind cross vein slightly over its length from broadly rounded cubitulus; third vein setulose almost to small cross vein; costal spine vestigial; calypters opaque white.

Abdomen conical, shining black, intermediate segments dusted with gray pollen which extends thinly to or beyond middle of each in favorable angle; one pair of median marginals on segments one and two and a marginal row on three and four; genitalia black, wholly retracted within tip of abdomen; fused forceps rather strongly tapered on basal half thence polished and beaklike to apex; accessory process quite slender from base to tip and a trifle shorter than forceps, setose on outer side.

Female.—Vertex 0.24 of head width; outer verticals not developed; two pairs of proclinate and reclinate orbitals but uppermost much smaller; third antennal segment four times second; fourth abdominal segment more pointed than male, with discal bristles on apical half above; claws and pulvilli small, fore tarsi moderately wide and flattened.

Length, 6-7 mm.

Holotype male and *allotype* female, Gainesville, FLA., July. 29-Aug. 3, 1955, at light, in U. S. National Museum. *Paratypes*: 3 males same data as type except dated Sept. 9-23, Oct. 6-14, and Nov. 6-14, 1955 and 1 female, Atlanta, Ga., Jun. 19, 1949 (P. W. Fattig) all in the U. S. National Museum.